SIMON MARIANI

Software/AI Engineer

WORK EXPERIENCE

- **Stactics - Data/AI Engineer**
  Jul 2023 - Present – full-time
  At Stactics, I worked as a **consultant** and **product developer**. I developed and refined many skills as I built large **frontend** and **backend applications.** Alongside building complex web-applications, I also **led the deployment** onto cloud platforms using **Docker**, **Kubernetes,** and **GitHub actions**. This included projects focused on **data analysis** and **AI**, where I used real-life data to implement AI solutions in the cloud or embedded**.** In these projects, I **engaged with clients** and **managed stakeholders**.

- **ViNotion - Research Intern**
  Nov 2021 – Jul 2022 – full time
  I did my master's thesis at ViNotion, which focusses on **computer vision** in an **edge computing** fashion. Here, I worked with real life data from cameras mounted on trucks and took a deep dive into **segmentation networks** and **Out-of-Distribution Detection**. I am proud to say that my **research was published** and I look back upon my time here fondly.

- **Blackbear - Consultant**
  Jan 2022 – Dec 2022 – part time
  Blackbear provides a platform where companies can meet freelancing individuals. Here, I did **market research** of which the result became the foundation of their **new products**.

- **Vinea - Programming Camp Coordinator**
  Jun 2019 – Aug 2020 – part time
  I coordinated several programming camps for children between the ages of 9 and 13, where I **managed** and **taught** software skills.

EDUCATION

- **University of Amsterdam - MSc Artificial Intelligence**
  Sep 2020 – Jul 2022
  The MSc Artificial Intelligence at the University of Amsterdam is one of the **best in its field,** and I am proud to say that after two years I managed to complete the master's degree **with distinction** and **publish my master's thesis.** The study program is very technical and covers a wide range of fields within AI in depth. This required a high proficiency in **python and math** as well as a high degree of **adaptability and persistence**.

- **Tsinghua University - Exchange**
  Aug 2019 - Feb 2020
  Tsinghua University is one of the **highest-ranking universities globally**, and the highest ranking university in China. During my exchange here, I grew as a software engineer and my **adaptability to new environments and techniques** was profoundly tested. It also provided me with a **unique global perspective** on technology and education, as well as many insights into their extensive culture.

- **Utrecht University - BSc Artificial Intelligence**
  Sep 2017 - Jul 2020
  This bachelor's degree at the University of Utrecht is one of the most **interdisciplinary** AI bachelors available. Besides **math**, **computer science**, **algorithmics** and so forth, this bachelor's degree also teaches courses related to **neuroscience** and **philosophy**. It provided me with many **technical skills** as well as **unique insights** to succeed in an ever-changing world.

PROFILE

Versatile software and AI engineer, with strong research skills. Quick learner, adaptable and thrives in new environments. I enjoy creating and working on complex projects and bringing them from development into production. This also pairs well with my eagerness to grow as a software developer as there is always something new to learn. My academic background helps me to implement complex algorithms and systems, as well as developing and training various AI models.

CONTACT

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LANGUAGES

- Dutch – fluent
- English – fluent
- Spanish – intermediate
- German – intermediate
- Chinese – elementary

PROGRAMMING LANGUAGES

- Python
- JavaScript
- HTML/CSS
- C#
- R
- C - C++
- Clingo – Prolog - Netlogo

FRAMEWORKS AND SOFTWARE

- Django - Flask - FastAPI
- NodeJS - ExpressJS
- ReactJS
- SQL - NoSQL
- PyTorch – CUDA
- Linux
- Unity
- PowerBI

DEVELOPMENT TOOLS

- Docker - Docker Compose - Docker Swarm
- Kubernetes
- Git - GitHub - GitHub Actions
- Azure - AWS
- ETL/ELT

PUBLICATIONS AND RESEARCH

- **Master's Thesis AI (UvA)**
  I wrote my master's thesis at ViNotion about the **uncertainty estimation in neural networks**. Predictions of a neural network cannot be trusted blindly, and some **measure of uncertainty** must be given to their predictions. I did an extensive literature study and wrote a code base for my experiments which is publicly available on my [GitHub account](). The full paper can be found [here]().

- **Reproducibility Study (UvA)**
  One way to verify the validity of a study is to look at the **degree of reproducibility**. With a team of students, we re-implemented the code base of an existing paper, and then **validated and extended** their work. The result can be found [here]().

- **Bachelor's Thesis (UU)**
  In my bachelor's thesis about **AI to profile serial killers,** I apply and compare several **machine learning** approaches on an **existing database** from the Serial Homicide Expertise and Information Sharing Collaborative (SHEISC). The work can be found in the UU [database]().